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SEP 19 2006

Application Serial No.:
10/607,251Attorney Docket No.:
SP02-142REMARKS

In view of the following remarks, favorable reconsideration of the outstanding office action is respectfully requested.

No amendment to the claims is being made in this paper.

I. Objections

The Examiner has objected to the oath and declaration on file in this application. Applicant submits that a corrected declaration by the inventors will be filed at a later stage.

The Examiner has objected to the abstract of the present application. Applicant submits that the above amendment to the abstract has rendered this objection moot.

II. Rejections under 35 U.S.C. § 102

The Examiner has rejected claims 1-34 and 78-84 under 35 U.S.C. § 102(e) as being anticipated by United States Patent No. 6,468,941 (Bortun *et al.*).

To be patented an invention must be new. 35 U.S.C. §§ 101, 102(a), (e). If it is not new, that is, if it was known to others, it is said to be "anticipated." Hoover Group, Inc. v. Custom Metalcraft, Inc., 66 F.3d 299, 302, 36 USPQ2d 1101, 1103 (Fed. Cir. 1995) ("lack of novelty (often called 'anticipation') requires that the same invention, including each element and limitation of the claims, was known or used by others before it was invented by the patentee"). Anticipation is a question of fact, as is the question of inherency. In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997). Its proof differs from that for obviousness, 35 U.S.C. § 103, in that prior knowledge by others requires that all of the elements and limitations of the claimed subject matter must be expressly or inherently described in a single prior art reference. In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999); Constant v. Advanced Micro-Devices, Inc., 848 F.2d 1560, 1571, 7 USPQ2d 1057, 1064 (Fed. Cir. 1988). The single reference must describe and enable the claimed invention, including all claim limitations, with sufficient clarity and detail to establish that the subject matter already existed in the prior art and that its existence was recognized by persons of ordinary skill in the field of the invention. Crown Operations International, Ltd. v. Solutia Inc., 289 F.3d 1367, 1375, 62 USPQ2d 1917, 1921 (Fed. Cir. 2002); In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990) ("the reference must describe the applicant's claimed invention sufficiently to have placed a person of ordinary skill in the field of the invention in possession of it").

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The anticipating reference "must disclose every element of the challenged claim and enable one skilled in the art to make the anticipating subject matter." PPG Industries, Inc. v. Guardian Industries Corp., 75 F.3d 1558, 1566, 37 USPQ2d 1618, 1624 (Fed. Cir. 1996). When anticipation is based on inherency of limitations not expressly disclosed in the assertedly anticipating reference, it must be shown that the undisclosed information was known to be present in the subject matter of the reference. Continental Can Co. USA, Inc. v. Monsanto Co., 948 F.2d 1264, 1269, 20 USPQ2d 1746, 1749-50 (Fed. Cir. 1991). An inherent limitation is one that is necessarily present; invalidation based on inherency is not established by "probabilities or possibilities." Scaltech, Inc. v. Retec/Tetra, LLC., 178 F.3d 1378, 1384, 51 USPQ2d 1055, 1059 (Fed. Cir. 1999).

The Examiner asserted that

Claims 1-34 and 78-84 are rejected under 35 U.S.C. 102(e) as being anticipated by U. S. Patent 6,468,941 B1 to Bortun et al.

Col. 1 lines 25-32 in U. S. Patent 6,468,941 B1 discloses that the oxygen storage ability of CeO_2 arises from the facile nature of the $\text{Ce}^{4+}/\text{Ce}^{3+}$ redox reaction. The oxidation of Ce_2O_3 to CeO_2 builds up oxygen reserve. The disclosure set forth in col. 1 lines 25-32 in U. S. Patent 6,468,941 B1 fairly suggests that Ce_2O_3 can react with and remove oxygen out of an atmosphere. Col. 2 lines 10-17 in U. S. Patent 6,468,941 B1 discloses that in Ce-Zr based solid solutions the bulk Ce is redox active, and these materials are referred to OIC/OS type materials because their function involves oxygen storage. Col. 3 lines 19-30 reports that the oxygen storage material comprises: up to 95 mole % zirconium; about 0.5 to 40 mole % cerium; about 0.5 to 15 mole % R, where R is a rare earth metal, an alkaline earth metal or a combination of these two and from 0.5 to 15 mole % niobium. The oxygen storage material may also include a precious metal component; please see col. 3 lines 43-44.

Example 1 in col.s 6 and 7 reports what appears to be the same method for preparing the oxygen storage material, comprising:

preparing a solution of nitrate salts of the oxygen storage metallic components;

adding the solution of an aqueous solution of ammonium hydroxide to precipitate out a mixed hydrous oxide;

filtering out the precipitate and washing it with a liquid, and

calcining the precipitate to produce the mixed oxide, oxygen storage material.

Response to Arguments

Applicant's arguments filed June 6, 2006 have been fully considered but they are not persuasive.

a) The applicants argue that the sorbent material of applicants' claim 1 contains Ce_2O_3 , however the reference (i.e. U. S. Patent 6,468,941 B1) fails to specifically disclose that the material disclosed therein has the oxygen-absorbing capability.

Applicants' attention is directed to col. 1 lines 29-33 in U. S. Patent 6,468,941 B1 where it is disclosed that the oxidation of the Ce_2O_3 to CeO_2 builds up oxygen reserve, and mention is made of "facile oxygen storage". The disclosure in col. 1 lines 29-33 in U. S. Patent 6,468,941 B1 clearly teaches that Ce_2O_3 reacts with and removes oxygen out the vicinity of its environment.

b) The applicants argue that the disclosure of Bortun et al. shows that the material therein contains CeO_2 rather than Ce_2O_3 to CeO_2 . The applicants' Ce_2O_3 and its ability to react with oxygen is disclosed in col. 1 lines 29-33 in U. S. Patent

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6,468,941 B1. Note that the "oxidation" referred to in col. 1 lines 29-33 is the reaction with and removal of oxygen because the product of oxidation is CeO_2 .

c) The applicants submit that for essentially the same reasons given above in connection with claim 1, Bortun et al. does not disclose, expressly or inherently, a process for making the sorbent material of the present invention.

This submission is not persuasive for the reasons given in the 35USC102 rejection, and also for the reasons set forth in sub-paragraphs a) and b) in this portion of the Office Action.

Emphasis original.

Applicant respectfully traverses the above rejections.

Claim 1 of the present application claims an oxygen-absorbing sorbent material. The sorbent material of claim 1 of the present application contains Ce_2O_3 . However, the reference (Bortun et al.) fails to specifically disclose that the material disclosed therein has the oxygen-absorbing capability. Bortun et al. merely discloses that the material therein could be used as catalysts for oxidizing vehicle exhaust gas. Bortun et al. fails to expressly or inherently teach that the material therein could be used as the sorbent material as claimed in the present application. The disclosure of Bortun et al. shows that the material therein contains CeO_2 rather than Ce_2O_3 . As is taught in the present application, in order for the material of the present invention have oxygen-absorbing capacity, the Ce in the material must be in +3 valency. CeO_2 certainly cannot and would not further absorb O_2 present in any atmosphere it is exposed to. CeO_2 would rather function as an oxidizing agent, or an O_2 supplying agent. To this extent, one of ordinary skill in the art, in the light of the teachings of Bortun et al. and the present application, has serious doubt that the material of Bortun et al. can be used as an effective oxygen sorbent material.

Therefore, Applicant submits that claim 1 is not anticipated by Bortun et al.

All of claims 2-17 are dependent from claim 1. Therefore, they are not anticipated by Bortun et al. for the same reason.

The Examiner appears to have the view that Example 1 of Bortun et al. results in the sorbent material of the present invention. Applicant submits that for essentially the same reasons given above in connection with claim 1, Bortun et al. does not disclose, expressly or inherently, a process for making the sorbent material of the present invention.

All other process claims of the present application depend from claim 18. Therefore, they are not anticipated by Bortun et al. for the same reason.

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Accordingly, Applicant respectfully requests the Examiner to withdraw the rejections under 35 U.S.C. § 102(e).

IV. Conclusion

Applicant respectfully requests reconsideration of the outstanding Office action and a prompt notice of allowance for the outstanding claims.

Applicant believes that no extension of time is necessary to make this Response timely. Should Applicant be in error, Applicant respectfully requests that the Office grant the time extension pursuant to 37 C.F.R. § 1.136(a) as necessary to make this Response timely, and hereby authorizes the Office to charge any necessary fee or surcharge with respect to said time extension to the deposit account of the undersigned firm of attorneys, Deposit Account 03-3325.

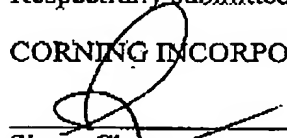
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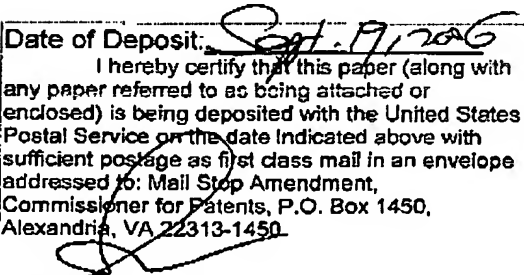
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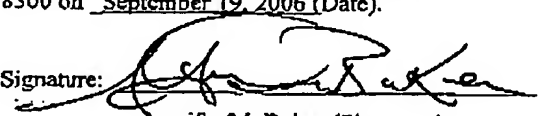
Respectfully submitted,

CORNING INCORPORATED

Date: Sept. 19, 2006


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